REMARKS

Claims 11, 15, 16, 34, 38 and 39 have been cancelled. Claims 1, 17, 21, 22, 24, 40 and 45 have been amended. Accordingly, Claims 1-10, 12-14, 17-33, 35-37 and 40-49 remain in this application and Applicants respectfully request reconsideration thereof.

Claims 47 and 48 are generic. The claims that remain are readable onto the elected species.

Applicants respectfully traverse the Examiner's rejection of claims based on a combination of Seyed-Yagoobi et al and Itoh. The Itoh reference does not enhance the teaching in Seyed-Yagoobi at all. The reason for this is that Itoh discloses an electric field curtain system with different configurations of linear electrodes. The purpose of the Itoh invention is to move continuously powder particles. The Itoh invention is indeed based on EHD induction pumping. However, the context of the disclosed invention is the conveying of particles for transportation which is very different from pumping of a stratified two-phase fluid in such a way that the heat-transfer characteristic of a heat transfer member associated with the stratified two-phase fluid is enhanced. The two arts (conveying of particles and pumping of a stratified two-phase fluid) are not analogous arts (contrary to the Examiner's specific assertion that they are from analogous arts) and it is respectfully submitted that one of ordinary skill in the art would not look to particle conveying in a nonheat-transfer environment technology to provide a solution, in an environment where there exists a stratified two-phase fluid (one phase being a liquid), to the problem of moving the liquid in a longitudinal direction to enhance the heat transfer characteristics of the heat transfer member. No such heat transfer enhancement technique is taught or even remotely suggested in Itoh.

Further, Itoh places wires in association with an insulator. An insulator is not a heat transfer member.

Accordingly, Applicants respectfully submit that the claims that remain in this application are patentably distinguishable from the combination of Seyed-Yagoobi et al and Itoh as required by the provisions of 35 USC 103.

The Knight reference has been added to the Examiner's use of Seyed-Yagoobi et al and Itoh references to reject Claims 16-18 and 39-41. Claims 16 and 39 have been cancelled. Nevertheless, the subject matter of these claims now appears in independent Claims 1 and 24, respectively. The Knight reference discloses an EHD generator with a plurality of conductor groups spaced apart along a conduit, producing flow. The objective of the Knight invention is to pump a supersaturated gaseous medium. Again, the Knight invention relates to a single phase flow without any heat transfer significance. Furthermore, the plurality of conductor groups is meant to optimize the pumping efficiency (pumping power vs. power input), which is very much different from the objective of the present application where the plurality of conductor groups facilitates a pumping of a thin liquid film where needed. In this application, the spaces between the conductor groups will allow the liquid to flow away from the heat transfer member by gravity. It is, therefore, respectfully submitted that the claims that remain, particularly Claims 16-18, 24 and 40-41, patentably define over the combination of Seyed-Yagoobi et al, Itoh and Knight as required by the provisions of 35 USC 103.

It is important that the Examiner recognize the fundamental difference of the Applicants' invention, which is to use EHD induction pumping in a smart way to manage thin liquid films so that the efficiency of the heat transfer device is increased. Depending on each of the electrode configurations disclosed, Applicants will be able to achieve a prescribed flow which can be more or less relevant, depending on the system and the operating conditions. As a consequence, and with all of these configurations, Applicants will be able to design a heat exchanger having all of the desired operating characteristic.

Claims 47 to 49 are submitted in an unamended form. Neither of Seyed-Yagoobi et al, Itoh or Knight provide the requisite motivation to provide separate surface alterations extending coextensively with the axial length of the heat transfer member and causing the multiple electrical conductors to each be received on a respective one of the separate

surface alterations. Accordingly, Applicants respectfully submit that Claims 47 to 49 patentably define over the Seyed-Yagoobi et al, Itoh and Knight references as required by the provisions of 35 USC 102 and 103.

Further and favorable consideration of this application is respectfully solicited.

Respectfully submitted,

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